

CLAIMS

What is claimed:

1. A communication system comprising:

a base station;

a first wireless communication terminal for performing a packet communication with respect to said base station by using one carrier; and
a second wireless communication terminal for performing a packet communication with respect to said base station by using a plurality of carriers at the same time,

wherein said base station comprises:

allocation information applying means for applying allocation information which is commonly used for said plurality of carriers when the carriers are allocated to either said first wireless communication terminal or said second wireless communication terminal; and

allocation information storage means for storing thereinto said allocation information.

2. A wireless communication system as claimed in claim 1 wherein said allocation information storage means stores said allocation information in such a manner that said allocation information is arrayed in accordance with a predetermined sequence; and

said allocation information applying means allocates said allocation information with respect to said first wireless communication terminal from one direction of said array, and also allocates said allocation information to

said second wireless communication terminal from the other direction of said array.

3. A wireless communication system as claimed in claim 2 wherein said allocation information applying means is capable of changing a boundary in said array between said allocation information allocated to said first wireless communication terminal and said allocation information allocated to said second wireless communication terminal.

4. A wireless communication system as claimed in claim 1 wherein said allocation information storage means stores therein both the allocation information allocated to said first wireless communication terminal and the allocation information allocated to said second wireless communication terminal as separate arrays.

5. A wireless communication system as claimed in claim 1 wherein said packet communication is carried out by using a variable length packet.

6. A communication system as claimed in claim 1, further comprising:

time slot allocating means for allocating time slots which are used in packet communications by said first and second wireless communication terminals, the time slot allocating means allocates one wireless communication terminal among said first and second wireless communication terminals to one unit of a time slot distribution used by said first and second wireless communication terminals in the packet communications every said carrier.

7. A wireless communication system as claimed in claim 6, wherein said time slot allocating means allocates one wireless communication terminal among said first and second wireless communication terminals to one unit of a time slot distribution used by said first and second wireless communication terminals in the packet communications every said carrier, and also allocates said first wireless communication terminal and said second wireless communication terminal in an independent manner.

8. A wireless communication system as claimed in claim 6, wherein said time slot allocating means allocates one wireless communication terminal among said first and second wireless communication terminals to one unit of a time slot distribution used by said first and second wireless communication terminals in the packet communications every said carrier, and also allocates said first wireless communication terminal and said second wireless communication terminal in an alternate manner.

9. A wireless communication system as claimed in claim 6, wherein said packet communication is carried out by using a variable length packet.

10. A communication system as claimed in claim 1 further comprising:
time slot allocating means for allocating time slots which are used in
packet communications by said first and second wireless communication
terminals; and

time slot distribution determining means for determining a time slot
distribution which can be used by both said first wireless communication
terminal and said second wireless communication terminal.

11. A wireless communication system as claimed in claim 10 wherein said time slot allocating means allocates time slots which are independently used in the packet communications by said first and second wireless communication terminals within the time slot distribution which can be used by said first wireless communication terminal and the time slot distribution which can be used by said second wireless communication terminal, both said time slot distributions being determined by said time slot distribution determining means.

12. A wireless communication system as claimed in claim 10 wherein said time slot distribution determining means determines the time slot distributions which can be used by said first wireless communication terminal and said second wireless communication terminal based upon a comparison result made between communication qualities of said first wireless communication terminal and communication qualities of said second wireless communication terminal.

13. A wireless communication system as claimed in claim 12 wherein said time slot distribution determining means determines the time slot distributions which can be used by said first wireless communication terminal and said second wireless communication terminal based upon a comparison result made between an average value of communication qualities of said first wireless communication terminal and an average value of communication qualities of said second wireless communication terminal.

14. A wireless communication system as claimed in claim 12 wherein said time slot distribution determining means determines the time slot distributions which can be used by said first wireless communication terminal and said second wireless communication terminal based upon a comparison result made between a maximum value of communication qualities of said first wireless communication terminal and a maximum value of communication qualities of said second wireless communication terminal.

15. A wireless communication system as claimed in claim 10 wherein said time slot distribution determining means determines the time slot distributions which can be used by said first wireless communication terminal and said second wireless communication terminal based upon a comparison result made between a total number of said first wireless communication terminals and also a total number of said second wireless communication terminals, which are connected to said base station.

16. A base station apparatus for performing a packet communication with respect to both a first wireless communication terminal for performing a packet communication by using one carrier, and a second wireless communication terminal for performing a packet communication by using a plurality of carriers at the same time, said base station apparatus comprising:

allocation information applying means for applying allocation information which is commonly used for said plurality of carriers when the carriers are allocated to either said first wireless communication terminal or said second wireless communication terminal; and

allocation information storage means for storing thereinto said allocation information.

17. A base station apparatus as claimed in claim 16, wherein said packet communication is carried out by using a variable length packet.

18. A base station apparatus as claimed in claim 16, further comprising:

time slot allocating means for allocating time slots which are used by the wireless communication terminals in packet communications, said time slot allocating means allocates one wireless communication terminal among said first and second wireless communication terminals to one unit of a time slot distribution used by said first and second wireless communication terminals in the packet communications every one carrier.

19. A base station apparatus as claimed in claim 18, wherein said packet communication is carried out by using a variable length packet.

20. A base station apparatus as claimed in claim 16 further comprising:

time slot allocating means for allocating time slots which are used in packet communications by said first and second wireless communication terminals; and

time slot distribution determining means for determining a time slot distribution which can be used by both said first wireless communication terminal and said second wireless communication terminal.

21. A base station apparatus as claimed in claim 20 wherein said packet communication is carried out by using a variable length packet.

22. A wireless communication terminal for communicating with a base station apparatus which performs a packet communication with respect to both a wireless communication terminal for executing a packet communication by employing one carrier and also another wireless communication terminal for executing a packet communication by employing a plurality of carriers at the same time; and said base station apparatus comprising: allocation information applying means for applying allocation information which is commonly employed with respect to the plural carriers when carriers are allocated to specific wireless communication terminals; and allocation information storage means for storing thereinto the allocation information; wherein said wireless communication terminal judges a destination of a communication packet transmitted from said base station based upon said allocation information contained in a header of said transmitted packet so as to be communicated with said base station.

23. A wireless communication terminal as claimed in claim 22, wherein said packet communication is carried out by using a variable length packet.

24. A wireless communication terminal for communicating with a base station apparatus which performs a packet communication with respect to both a wireless communication terminal for executing a packet communication by employing one carrier and also another wireless communication terminal for

executing packet communication by employing a plurality of carriers at the same time; and

said base station apparatus comprising: allocation information applying means for applying allocation information which is commonly employed with respect to the plural carriers when the carriers are allocated to specific wireless communication terminals at the same time; time slot allocating means for allocating time slots which are used by the wireless communication terminals in packet communications; and allocation information storage means for storing thereinto the allocation information; in which said time slot allocating means allocates one wireless communication terminal among said first and second wireless communication terminals to one unit of a time slot distribution used by said first and second wireless communication terminals in the packet communications every one carrier; wherein:

said wireless communication terminal judges a destination of a communication packet transmitted from said base station based upon said allocation information contained in a header of said transmitted packet so as to be communicated with said base station.

25. A wireless communication terminal as claimed in claim 24 wherein said packet communication is carried out by using a variable length packet.

26. A wireless communication terminal for communicating with a base station apparatus which performs a packet communication with respect to both a wireless communication terminal for executing a packet communication by employing one carrier and also another wireless communication terminal for

executing a packet communication by employing a plurality of carriers at the same time; and

said base station apparatus comprising: allocation information applying means for applying allocation information which is commonly employed with respect to the plural carriers when a carrier is allocated to a specific terminal of said wireless communication terminals; time slot allocating means for allocating time slots which are used by the wireless communication terminals in packet communications; allocation information storage means for storing thereinto the allocation information; and time slot distribution determining means for determining a time slot distribution which can be used by both the wireless communication terminal using one carrier, and also, the wireless communication terminal using the plural carriers at the same time;

wherein said wireless communication terminal judges a destination of a communication packet transmitted from said base station based upon said allocation information contained in a header of said transmitted packet so as to be communicated with said base station.

27. A wireless communication terminal as claimed in claim 26, wherein said packet communication is carried out by using a variable length packet.